



CLEAN COPY OF PENDING CLAIMS

Serial No. 09/778,926

Filed February 6, 2001

September 30, 2002

- B1
1. (Once Amended) A method for typing a sample of a prion or spongiform encephalopathy disease the method comprising comparing and identifying similar physicochemical properties of the sample with a standard sample of known PrP^{Sc} type, wherein the physicochemical properties are the sizes and ratios of distinct PrP^{Sc} glycoforms.
 2. A method as claimed in claim 1 wherein the standard sample of known PrP^{Sc} type is bovine spongiform encephalopathy or Creutzfeldt-Jakob disease.
 - B2
 3. (Once Amended) A method as claimed in claim 1 wherein the comparison of physicochemical properties comprises a comparison of protease resistance, fragment size, and ratio of PrP^{Sc} glycoforms.
 4. (Once Amended) A method as claimed in claim 3 wherein the protease resistance is proteinase K resistance.
 5. (Twice Amended) A method as claimed in claim 3 wherein the spongiform encephalopathy is mammalian or chicken derived.
 6. (Twice Amended) A method as claimed in claim 3 wherein the method comprises the steps of subjecting the sample to digestion by a protease, electrophoresing the result of the digestion step and comparing the resulting pattern of fragment size and ratio of PrP^{Sc} glycoforms of the electrophoresis with a standard electrophoresis pattern of a known PrP^{Sc} type.
 7. (Once Amended) A method as claimed in claim 3 wherein the typing of the sample comprises a method of diagnosing a disease.

8. (Twice Amended) A method as claimed in claim 6 wherein the sample to be typed is mammalian or chicken derived.

B2
9. (Twice Amended) A method as claimed in claim 3 wherein the sample to be typed is derived from brain tissue, other central nervous system tissue, a tissue of the lymphoreticular system, cerebrospinal fluid and/or the blood.

N.E.
10. (Once Amended) A method as claimed in claim 6 wherein the electrophoresis pattern of the known sample has a pattern substantially similar to that of type 4 as shown in figure 4.

13. A method of identifying infection in an animal and/or tissue of bovine spongiform encephalopathy the method comprising isolating a prion protein from the animal and/or tissue and identifying that said prion protein can be characterized by having three distinct bands on an electrophoresis gel following proteinase K digestion, the bands comprising i) a band of highest molecular weight in the greatest proportion, ii) a band of lowest molecular weight in the lowest proportion, and (iii) a band with a molecular weight between i and ii and a proportion between i and ii or characterized by having substantially similar glycoform proportions as bovine spongiform encephalopathy.

14. A method as claimed in claim 13 wherein the animal or tissue is non-bovine.

15. A method as claimed in claim 13 wherein the animal, and/or tissue, from which the prion is sampled is mammalian or chicken derived.

16. A method as claimed in claim 13 wherein the prion is derived from brain tissue, other central nervous system tissue, a tissue of the lymphoreticular system, cerebrospinal fluid and/or the blood.

26. A method for identifying infection in an animal and/or tissue, as claimed in claim 13, wherein the electrophoresis pattern of the known sample has a pattern substantially similar to that of type 4 as shown in Figure 4.
27. CANCELLED
28. (New) The method of claim 5, wherein the spongiform encephalopathy is derived of mammalian origin selected from the group consisting of bovine, feline, cervine, ovine, human, primate, and murine.
29. (New) The method of claim 8, wherein the spongiform encephalopathy is derived of mammalian origin selected from the group consisting of bovine, feline, cervine, ovine, human, primate, and murine.
30. (New) The method of claim 15, wherein the spongiform encephalopathy is derived of mammalian origin selected from the group consisting of bovine, feline, cervine, ovine, human, primate, and murine.
31. (New) The method of claim 9, wherein the prion is derived from a tissue of the lymphoreticular system selected from the group consisting of spleen, tonsil, or lymph node.
32. (New) The method of claim 16, wherein the prion is derived from a tissue of the lymphoreticular system selected from the group consisting of spleen, tonsil, or lymph node.